



The Behavioral Ecology of Biological Control



by Visiting Professor **Peter Schausberger**
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  **2nd period, Thursdays, June 6th – July 18th @W102**
2nd period, Tuesday, July 16th @W506

Course Summary: Behavioral Ecology is a comparatively young, multi- and cross-disciplinary field of science that integrates concepts and ideas from animal behavior, ecology and evolution. The overall objective of Behavioral Ecology is studying the adaptive significance of behavior and how it contributes to survival and reproductive success. This course highlights the behavioral ecology of arthropod herbivores and natural enemies that have relevance in agriculture as either pest or beneficial. It places emphasis on how behavioral ecology contributes to the knowledge base needed for the successful control of arthropod pests and using arthropods as natural enemies, that is, biological control. Biological Control is the targeted control and regulation of populations of pests and weeds by the use of living natural enemies and has ever-increasing success, especially in horticulture. Biological control is a science-based approach which success depends on thorough knowledge of the behavior, ecology and evolution of the players in multi-trophic food webs including plants, herbivores and their natural enemies. The course explains the theoretical background and presents arthropod case studies, mainly from insects, spiders and mites, to illustrate the major ideas and concepts of behavioral ecology. Major topics discussed include foraging behavior, predator-prey interactions, sexual selection, recognition systems and kin selection, learning, multitrophic interactions and induced plant defense, and animal personalities.

This course will be given in English.



Arthropod Behavioral Ecology

Course Schedule

The schedule may change slightly depending on the progress.

Date	Room	Contents	Date	Room	Contents
Thursday, June 6 th	W102	Behavioral ecology scope and relevance for biological control	Thursday, July 4 th	W102	Learning by herbivores and their natural enemies
Thursday, June 13 th	W102	Foraging behavior and sexual selection	Thursday, July 11 th	W102	Multitrophic interactions and induced plant defense
Thursday, June 20 th	W102	Predator prey interactions and anti-predator behavior	<u>Tuesday, July 16th</u>	<u>W506</u>	Animal personalities in biological control
Thursday, June 27 th	W102	Recognition systems and kin selection	Thursday, July 18 th	W102	Student presentations

Please contact the International Exchange Section if you have not registered for this course on KULASIS but would still like to take it.